

Claims

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- 5 1. Process for the heat treatment of waste, in which pyrolysis is carried out in order to distil, at low temperature (600 to 700°C) and in the absence of oxygen, all the combustible waste, whatever its net calorific value (NCV), and in order to produce coke and fuel gases, rich in CO, CH₄ and various tars, which can subsequently be incinerated at 1200°C under spontaneous combustion in a specific chamber, characterized in that the hot gas flow necessary for the pyrolysis of the waste in the course of distillation is provided by the combustion of the coke with a deficiency of air, the gases produced moving countercurrentwise to the solids.
- 10 15 2. Plant for the heat treatment of waste for the implementation of the process according to Claim 1, comprising a rotating cell (1) formed of a cylinder (9) in combination with a truncated cone (10) rotating on the same axis and comprising a hopper for charging the waste (3) at one end, an ash box (7) at the other end and a gas recuperator (6), characterized in that a retaining threshold (11) lies between the cylindrical chamber (9) and the frustoconical chamber (10), creating a region of intimate contact of the waste with itself during coking, where it receives a small amount of oxygen in a substoichiometric amount, in order to convert it into coke which is used as fuel in the pyrolysis of the waste.
- 20 25 30 35 3. Plant according to Claim 2, characterized in that the retaining threshold (11) for the waste connecting the cylinder (9) and the truncated cone (10) is formed by the difference between the diameter (12) of the cylinder (9) and the diameter (13) of the large base of the truncated cone (10).
4. Plant according to Claim 2, characterized in that the truncated cone (10) of the cell (1) comprises a network of nozzles fed via channels distributing the combustion air (14) in a substoichiometric amount under

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the ignited coke in order to provide the heat flow necessary for the pyrolysis.

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